

# SEQUENCE LISTING

<110> CLAYMAN, GARY  
NAKASHIMA, TORAHICO  
SPRING, PAUL

<120> METHODS AND COMPOSITIONS OF A NOVEL SERINE PROTEASE

<130> UTSC:631USD1

<140> UNKNOWN

<141> 2004-01-28

<150> 09/653,464

<151> 2000-08-31

<150> 60/151,776

<151> 1999-08-31

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<170> PatentIn Ver. 2.0

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Met Gly Asp Ala Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser  
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Ser Gly Ser Gly Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val  
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Ala Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Thr Gly Ile Gly  
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Phe Thr Val Thr Ser Ala Pro Gly His Glu Asn Val His Cys Asn His  
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Gly Ile Leu Thr Ala Ile Gly Met Val Leu Leu Gly Thr Arg Gly Ala  
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Thr Ala Ser Gln Leu Glu Glu Val Phe His Ser Glu Lys Glu Thr Lys  
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Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Val Arg Ile Lys Ala  
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Glu Gly Lys Glu Ile Glu Asn Thr Glu Ala Val His Gln Gln Phe Gln  
85 90 95

Lys Phe Leu Thr Glu Ile Ser Lys Leu Thr Asn Asp Tyr Glu Leu Asn  
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Ile Thr Asn Arg Leu Phe Gly Glu Lys Thr Tyr Leu Phe Leu Gln Lys  
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Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr His Ala Ser Leu Glu Pro Val  
130 135 140

Asp Phe Val Asn Ala Ala Asp Glu Ser Arg Lys Lys Ile Asn Ser Trp  
145 150 155 160

Val Glu Ser Lys Thr Asn Glu Lys Ile Lys Asp Leu Phe Pro Asp Gly  
165 170 175

Ser Ile Ser Ser Ser Thr Lys Leu Val Leu Val Asn Met Val Tyr Phe

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Gln	Ser	His	Ser	Phe	Ser	Phe	Thr	Phe	Leu	Glu	Asp	Leu	Gln	Ala	Lys	
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Glu	Ala	Ala	Ala	Ala	Thr	Gly	Ile	Gly	Phe	Thr	Val	Thr	Ser	Ala	Leu	
355					360					365						
Gly	His	Glu	Asn	Val	His	Cys	Asn	His	Pro	Phe	Leu	Phe	Phe	Ile	Arg	
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Phe Cys Leu Arg Ala Ser Glu  
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Ser Ile Thr Ser Ala Leu Gly Met Val Leu Leu Gly Ala Lys Asp Asn  
35 40 45

Thr Ala Gln Gln Ile Lys Lys Val Leu His Phe Asp Gln Val Thr Glu  
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Asn Thr Thr Gly Lys Ala Ala Thr Tyr His Val Asp Arg Ser Gly Asn  
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Val His His Gln Phe Gln Lys Leu Leu Thr Glu Phe Asn Lys Ser Thr  
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Asp Ala Tyr Glu Leu Lys Ile Ala Asn Lys Leu Phe Gly Glu Lys Thr  
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Tyr Leu Phe Leu Gln Glu Tyr Leu Asp Ala Ile Lys Lys Phe Tyr Gln  
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Thr Ser Val Glu Ser Val Asp Phe Ala Asn Ala Pro Glu Glu Ser Arg  
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Lys Lys Ile Asn Ser Trp Val Glu Ser Gln Thr Asn Glu Lys Ile Lys  
145 150 155 160

Asn Leu Ile Pro Glu Gly Asn Ile Gly Ser Asn Thr Thr Leu Val Leu  
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Val Asn Ala Ile Tyr Phe Lys Gly Gln Trp Glu Lys Lys Phe Asn Lys  
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Glu Asp Thr Lys Glu Glu Lys Phe Trp Pro Asn Lys Asn Thr Tyr Lys  
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Ser Ile Gln Met Met Arg Gln Tyr Thr Ser Phe His Phe Ala Ser Leu  
210 215 220

Glu Asp Val Gln Ala Lys Val Leu Glu Ile Pro Tyr Lys Gly Lys Asp  
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Gln Asn Met Arg Glu Thr Arg Val Asp Leu His Leu Pro Arg Phe Lys  
275 280 285

Val Glu Glu Ser Tyr Asp Leu Lys Asp Thr Leu Arg Thr Met Gly Met  
290 295 300

Val Asp Ile Phe Asn Gly Asp Ala Asp Leu Ser Gly Met Thr Gly Ser  
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Arg Gly Leu Val Leu Ser Gly Val Leu His Lys Ala Phe Val Glu Val  
325 330 335

Thr Glu Glu Gly Ala Glu Ala Ala Ala Thr Ala Val Val Gly Phe  
340 345 350

Gly Ser Ser Pro Thr Ser Thr Asn Glu Glu Phe His Cys Asn His Pro  
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Gly Arg Phe Ser Ser Pro  
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Ser Ile Thr Ser Ala Leu Gly Met Val Leu Leu Gly Ala Lys Asp Asn  
35 40 45

Thr Ala Gln Gln Ile Ser Lys Val Leu His Phe Asp Gln Val Thr Glu  
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Asn Thr Thr Glu Lys Ala Ala Thr Tyr His Val Asp Arg Ser Gly Asn  
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			20					25					30		
Trp	Ser	Ile	Ser	Ser	Thr	Met	Ala	Met	Val	Tyr	Met	Gly	Ser	Arg	Gly
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Ser	Thr	Glu	Asp	Gln	Met	Ala	Lys	Val	Leu	Gln	Phe	Asn	Glu	Val	Gly
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Ala	Asn	Ala	Val	Thr	Pro	Met	Thr	Pro	Glu	Asn	Phe	Thr	Ser	Cys	Gly
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Phe	Met	Gln	Gln	Ile	Gln	Lys	Gly	Ser	Tyr	Pro	Asp	Ala	Ile	Leu	Gln
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Ala	Gln	Ala	Ala	Asp	Lys	Ile	His	Ser	Ser	Phe	Arg	Ser	Leu	Ser	Ser
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Cys	Gln	Lys	Tyr	Tyr	Ser	Ser	Glu	Pro	Gln	Ala	Val	Asp	Phe	Leu	Glu
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Cys	Ala	Glu	Glu	Ala	Arg	Lys	Lys	Ile	Asn	Ser	Trp	Val	Lys	Thr	Gln
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Thr	Lys	Gly	Lys	Ile	Pro	Asn	Leu	Leu	Pro	Glu	Gly	Ser	Val	Asp	Gly
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Asp	Thr	Arg	Met	Val	Leu	Val	Asn	Ala	Val	Tyr	Phe	Lys	Gly	Lys	Trp
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	210					215					220				
Asn	Ser	Ala	Gln	Arg	Thr	Pro	Val	Gln	Met	Met	Tyr	Leu	Arg	Glu	Lys
225					230					235					240
Leu	Asn	Ile	Gly	Tyr	Ile	Glu	Asp	Leu	Lys	Ala	Gln	Ile	Leu	Glu	Leu
			245						250					255	
Pro	Tyr	Ala	Gly	Asp	Val	Ser	Met	Phe	Leu	Leu	Leu	Pro	Asp	Glu	Ile
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 Asp Lys Leu Asn Lys Trp Thr Ser Lys Asp Lys Met Ala Glu Asp Glu  
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 Val Glu Val Tyr Ile Pro Gln Phe Lys Leu Glu Glu His Tyr Glu Leu  
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 Arg Ser Ile Leu Arg Ser Met Gly Met Glu Asp Ala Phe Asn Lys Gly  
 325 330 335  
 Arg Ala Asn Phe Ser Gly Met Ser Glu Arg Asn Asp Leu Phe Leu Ser  
 340 345 350  
 Glu Val Phe His Gln Ala Met Val Asp Val Asn Glu Glu Gly Thr Glu  
 355 360 365  
 Ala Ala Ala Gly Thr Gly Gly Val Met Thr Gly Arg Thr Gly His Gly  
 370 375 380  
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Ser Ser Arg Ile Lys Ala Glu Glu Lys Glu Val Ile Glu Asn Thr Glu
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Ala Val His Gln Gln Phe Gln Lys Phe Leu Thr Glu Ile Ser Lys Leu
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Thr Asn Asp Tyr Glu Leu Asn Ile Thr Asn Arg Leu Phe Gly Glu Lys
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Thr Tyr Leu Phe Leu Gln Lys Tyr Leu Asp Tyr Val Glu Lys Tyr Tyr
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His Ala Ser Leu Glu Pro Val Asp Phe Val Asn Ala Ala Asp Glu Ser
          130             135             140

Arg Lys Lys Ile Asn Ser Trp Val Glu Ser Lys Thr Asn Glu Lys Ile
          145             150             155             160

Lys Asp Leu Phe Pro Asp Gly Ser Ile Ser Ser Ser Thr Lys Leu Val
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Leu Val Asn Met Val Tyr Phe Lys Gly Gln Trp Asp Arg Glu Phe Lys
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Lys Glu Asn Thr Lys Glu Glu Lys Phe Trp Met Asn Lys Ser Thr Ser
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 35 40 45  
 Met Gly Asp Ala Phe Ser Glu His Lys Ala Asp Tyr Ser Gly Met Ser  
 50 55 60  
 Ser Gly Ser Gly Leu Tyr Ala Gln Lys Phe Leu His Ser Ser Phe Val  
 65 70 75 80  
 Ala Val Thr Glu Glu Gly Thr Glu Ala Ala Ala Thr Gly Ile Gly  
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 Phe Thr Val Thr Ser Ala Pro Gly His Glu Asn Val His Cys Asn His  
 100 105 110  
 Pro Phe Leu Phe Phe Ile Arg His Asn Glu Ser Asn Ser Ile Leu Phe  
 115 120 125  
 Phe Gly Arg Phe Ser Ser Pro  
 130 135